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- (71) Applicant: **MATHESON TRI-GAS, INC.** [US/US]; P.O. Box 624, Route 46 East, Parsippany, NJ 07054-0624 (US).
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- (72) Inventors: **WATANABE, Tadaharu**; 1995 E. Coalton Road, Superior, CO 80027 (US). **FRAENKEL, Dan**; 715 Monument Road, Apt. #26, Ponca City, OK 74604 (US).
- (74) Agents: **BURTON, Carol, W.** et al.; Hogan & Hartson LLP, Suite 1500, 1200 17th Street, Denver, CO 80202 (US).
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(54) Title: MATERIALS AND METHODS FOR THE PURIFICATION OF HYDRIDE GASES

(57) Abstract: Regenerable gas purifier materials are provided capable of reducing the level of contaminants such as oxygen and moisture in a hydride gas stream to parts-per-billion levels or sub-parts-per-billion levels. The purifier materials of this invention comprise a thin layer of one or more reduced forms of a metal oxide coated on the surface of a nonreactive substrate. The thin layer may further contain the completely reduced form of the metal. In one embodiment, the total surface area of the thin layer is less than 100 m²/g.

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